REMARKS

Claims 29-54 and 56-64 are pending in the present application. Claims 63 and 64 have been presented herewith.

Request for Personal Interview

The Examiner is respectfully requested to contact the undersigned prior to examination of this application in view of this Amendment, so as to schedule a personal interview.

Drawings

Applicant notes the Examiner's acceptance of the drawing Replacement Sheets filed along with the Amendment dated March 23, 2009.

Claim Rejections-35 U.S.C. 102

Claims 29, 32, 35, 43, 46-51, 53 and 61 have been rejected under 35 U.S.C. 102(b) as being anticipated by the Berndtsson reference (US 6,387,328). This rejection is respectfully traversed for the following reasons.

The cartridge for characterizing particles suspended in a liquid sample of claim 29 includes in combination among other features a first collection chamber "separated by a first wall from the first mixing chamber, the first wall having a first orifice for the passage of particles between the first mixing chamber and the first collection chamber";

and a first particle characterizer "that characterizes the particles passing through the first orifice". Applicant respectfully submits that the Berndtsson reference as relied upon by the Examiner does not disclose these features.

On page 3, lines 6-9 of the Final Office Action dated July 21, 2009, the Examiner has asserted that large volume space 61 and conical recess 59 in Fig. 2 of the Berndtsson reference may respectively be interpreted as the first mixing chamber and the first collection chamber of claim 29, and which are allegedly separated by a wall containing a first orifice as featured in claim 29. Applicant respectfully submits that the Examiner's above noted interpretation of the Berndtsson reference is improper for at least the following reasons.

In the cartridge according to claim 29, the first orifice in the first wall provides passage of particles between the first mixing chamber and the first collection chamber. That is, particles within the first mixing chamber of claim 29 pass through the first orifice of the first wall to the first collection chamber. As noted above, the Examiner has interpreted conical recess 59 in Fig. 2 of the Berndtsson reference as the first collection chamber of claim 29.

However, as described beginning in column 3, lines 56-62 of the Berndtsson reference with respect to Figs. 2-4 for example, sucking channel 56 leads to a sucking means in the shape of diaphragm pump 59 having resilient diaphragm 58 covering conical recess 59 in upper wall 41. As further described beginning in column 4, line 25 of the Berndtsson reference with respect to Fig. 3, upon depressing resilient diaphragm

58 with a fingertip, a volume of air contained under diaphragm 58 within conical recess 59 is expelled out of conical recess 59 through sucking channel 56, through channel 53 of turning valve 50 and intake channel 54 to the exterior of body 40.

As may be readily understood in view of the description beginning in column 4, line 36 of the Berndtsson reference with respect to Fig. 4, as resilient diaphragm 58 returns to normal shape after depression thereof as shown in Fig. 3, sample S of blood is sucked from drop D to fill channels 54, 53 and 56 as well as a portion of conical recess 59. As described, it is important to make sure that through channel 53 is properly filled, so that it contains an accurately defined volume.

As thereafter described beginning in column 4, line 49 with respect to Fig. 5 of the Berndtsson reference, valve body 51 is subsequently rotated to the second position as shown so as to separate or isolate the volume of sample S contained in through channel 53 from the liquid within channels 54 and 56 and within conical recess 59. The measured sample in through channel 53 is subsequently shown in Fig. 6 as displaced into large volume space 61 from turning valve 50 via channel 60.

Accordingly, as should be readily understood in view of the above, the volume of blood initially drawn into conical recess 59 responsive to actuation of resilient diaphragm 58 of the apparatus shown in Fig. 4 of the Berndtsson reference is never provided to/from large volume space 61. Conical recess 59 is not a collection chamber for a liquid sample that is or that will be characterized, but is merely part of suction means into which discardable liquid is drawn under reverse pressure from resilient

diaphragm 58. In particular, passage of particles is not realized or provided between large volume space 61 and conical recess 59 of the Berndtsson reference, as would be necessary to meet the features of claim 29. As should be readily clear at least in view of Fig. 5 of the Berndtsson reference, the volume of liquid within conical recess 59 is cut off and isolated from the remainder of the apparatus by turning valve 50. Volume space 61 and conical recess 59 of the apparatus in Fig. 2 of the Berndtsson reference thus cannot be interpreted respectively as the first mixing chamber and the first collection chamber of claim 29. Applicant therefore respectfully submits that this rejection is improper for at least these reasons.

In the Response to Arguments section on page 16, lines 19-22 of the Final Office Action dated July 21, 2009, the Examiner has asserted the following:

> ***"Again, Fig. 2 shows that the contents of the first mixing chamber (61) are physically separated from the contents of the first collection chamber. It is only the channel (60) which connects the two, thereby enabling fluid transfer from one chamber to the other".***

As emphasized previously, conical recess 59 is isolated from large volume space 61 as shown in Fig. 5 of the Berndtsson reference, and contrary to the Examiner's assertion, there is no passage of particles and/or liquid therebetween. Moreover and further contrary to the Examiner's assertion, large volume space 61 in Fig. 2 of the Berndtsson reference is not "connected to" conical recess 59 "only" by channel 60, as asserted by the Examiner. As shown in Fig. 2 of the Berndtsson reference, on the one

hand sucking channel 56 is connected to through channel 53 of turning valve 50, and on the other hand large volume space 61 is connected to through channel 53 of turning valve 50 by channel 60. However, there is no position that turning valve 50 can be manipulated to be in so that through channel 53 would connect channel 56 from conical recess 59 to channel 60 leading to large volume space 61. That is, there is no passage of particles or liquid between conical recess 59 and large volume space 61.

With further regard to this rejection, in the paragraph bridging pages 4-5 of the Final Office Action dated July 21, 2009, the Examiner has asserted that detectors 71 and 72 in Fig. 2 of the Berndtsson reference may be interpreted as the first particle characterizer of claim 29. Applicant respectfully submits that this particular interpretation by the Examiner is improper for at least the following reasons.

As described beginning in column 5, line 18 of the Berndtsson reference with respect to Fig. 8, piston rod 48 is operated to displace piston 47 toward upper end 45 of cylinder 44 to thereby displace at least a portion of the mixed and diluted sample L+S from cylinder 44 through capillary 64 located in channel 63. When the sample reaches detector 71 located within channel 63 counting is started, and when the sample reaches detector 72 also located within channel 63 counting is stopped. That is, detectors 71 and 72 are both located within channel 63 and respectively provide start and stop indication of the mixed sample as provided from cylinder 44 to bleed recess 62.

As emphasized previously, passage of particles is not provided between large volume space 61 and conical recess 59 in the apparatus of the Berndtsson reference.

Moreover, even if large volume space 61 and conical recess 59 of the Berndtsson reference could somehow be respectively interpreted as the first mixing chamber and the first collection chamber of claim 29 (which Applicant does not concede), since detectors 71 and 72 are provided in channel 63 remotely from both large volume space 61 and conical recess 59, detectors 71 and 72 clearly do not characterize particles passing through an orifice in a wall between large volume space 61 and conical recess 59, as would be necessary to meet the further features of claim 29. Applicant therefore respectfully submits that this rejection is improper for at least these additional reasons.

Accordingly, Applicant respectfully submits that the cartridge of claim 29 distinguishes over the Berndtsson reference as relied upon by the Examiner, and that this rejection of claims 29, 32, 35, 43, 46-51, 53 and 61 is improper for at least the above noted reasons.

Claim Rejections-35 U.S.C. 103

Claims 30, 34, 41, 44 and 45 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Berndtsson reference, in view of the Gorin et al. reference (US 5,077,017).

Claims 37-40 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Berndtsson reference, in view of the Besemer et al. reference (US 5,104,813).

Claim 42 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Berndtsson reference, in view of the Kelley reference (US 5,257,984).

Claims 33, 54 and 56 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Berndtsson reference in view of the Feistel reference (US 6,426,230).

Applicant respectfully submits that the respective secondary references as relied upon do not overcome the above noted deficiencies of the primarily relied upon Berndtsson reference, and that these respective rejections are improper for at least these reasons.

Allowable Subject Matter

Applicant respectfully notes the Examiner's acknowledgement that claims 31, 52, 57, 58, 60 and 62 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicant however respectfully submits that these above noted claims distinguish over and would not have been obvious in view of the relied upon prior art at least by virtue of dependency upon claim 29 for the reasons as set forth above, and that further amendment of these claims to be in independent form is thus unnecessary.

Claim 63 and 64

The cartridge for characterizing particles of claim 63 includes in combination among other features a first movable sampling member "positioned in the housing for sampling the liquid sample and having a first cavity for receiving and holding a precise volume of the liquid sample, and for discharging the held liquid sample into the first

mixing chamber"; a first collection chamber "separated by a first wall from the first mixing chamber, the first wall having a first orifice for the passage of particles directly from the first mixing chamber to the first collection chamber"; and a first particle characterizer "that characterizes the particles passing directly from the first mixing chamber to the first collection chamber through the first orifice."

As emphasized above, the Examiner has interpreted large volume space 61 and conical recess 59 in Fig. 2 of the Berndtsson reference respectively as the first mixing chamber and the first collection chamber of the claims. However, as emphasized previously, there is no passage of particles between large volume space 61 and conical recess 59 in Fig. 2 of the Berndtsson reference. More particularly, the structure in Fig. 2 of the Berndtsson reference does not include a first wall having a first orifice for passage of particles **directly from** large volume space 61 **to** conical recess 59, as would be necessary to meet the features of claim 63.

Claim 64 features that the first particle characterizer includes a first electrode in the first mixing chamber and a second electrode in the first collection chamber. Since large volume space 61 and conical recess 59 in Fig. 2 of the Berndtsson reference do not include first and second electrodes therein, the apparatus of the Berndtsson reference does not include a first particle characterizer as would be necessary to meet the further features of claim 64.

Accordingly, Applicant respectfully submits that claims 63 and 64 distinguish over and would not have been obvious in view of the prior art as relied upon by the Examiner taken singularly or together for at least these above reasons.

Conclusion

The Examiner is respectfully requested to reconsider and withdraw the corresponding rejections, and to pass the claims of the present application to issue, for at least the above reasons.

In the event that there are any outstanding matters remaining in the present application, please contact Andrew J. Telesz, Jr. (Reg. No. 33,581) at (571) 283-0720 in the Washington, D.C. area, to discuss these matters.

Pursuant to the provisions of 37 C.F.R. 1.17 and 1.136(a), the Applicant hereby petitions for an extension of two (2) months to March 28, 2008, for the period in which to file a response to the outstanding Office Action. The required fee of $1110.00 should be charged to Deposit Account No. 50-0238.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment for any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0238.

Respectfully submitted,

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